UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 W. JACKSON BLVD
CHICAGO, IL 60604

MEMORANDUM

SUBJECT: ENFORCEMENT ACTION MEMORANDUM - Determination of Threat to Public Health and the Environment and Selection of Time-Critical Removal Actions at the West Vermont Drinking Water Contamination Site, Speedway, Marion County, Indiana (Site ID #B5UJ)

FROM: Shelly Lam, OSC
Emergency Response Branch 1

THRU: Jason H. El-Zein, Chief
Emergency Response Branch 1

TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

This memorandum documents the determination of an imminent and substantial threat to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances, and documents your approval of the time-critical removal actions to be performed at the West Vermont Drinking Water Contamination Site (West Vermont, Residential Area, or the site). The site is a Residential Area bounded by West Vermont Street on the south, Holt Road on the east, West Michigan Street on the north, and North Rybolt Avenue on the west; it is located in Speedway, Marion County, Indiana (Figure 1).

On May 13, 2010, EPA approved an action memorandum to expend up to $68,704 for an emergency action to provide water treatment systems for three residences as well as supply drinking water prior to installation of the systems (Administrative Record [AR] Original, No. 5). On September 26, 2011, EPA approved an action memorandum to expend up to $237,000 to conduct time-critical removal activities that included a hydrogeologic investigation to find the source of contamination in the residential wells (AR Update #1, No. 7).

The response actions proposed herein are necessary in order to mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances at the site.

The presence of hazardous substances at the site has been documented. Vinyl chloride has been detected in water samples from residential drinking water wells at a maximum concentration of 62.7 micrograms per liter (µg/L) which exceeds U.S. Environmental Protection Agency's Removal Management Level (RML) (December 2012) of 1.5 micrograms per liter (µg/L). The vinyl chloride contamination is the result of a groundwater plume contaminated with chlorinated solvents.

The time-critical removal action proposed herein is to connect residential properties to a municipal drinking water supply and properly abandon private drinking water wells.

This response action will be conducted in accordance with Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S. Code (USC) § 9604(a)(1), to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances at the site. The uncontrolled conditions of the hazardous substances present at the site and the potential threats they present require that this action be classified as a time-critical removal action.

The potentially responsible parties (PRP) are expected to perform the time-critical removal actions under EPA oversight. EPA expects to issue a Unilateral Administrative Order (UAO) requiring the PRPs to perform the selected response actions. In a meeting with EPA in June 2011, the PRPs declined to negotiate an Administrative Order by Consent (AOC) with EPA. At that time, there was still considerable uncertainty as to which of the three potential sources identified as PRPs were the sources from which vinyl chloride was contaminating residential wells.

There are no nationally significant or precedent setting issues associated with the Site. The Site has not been proposed for the National Priorities List (NPL).

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID: INN000510429
RCRA ID: INR000130385
Category: Time-Critical Removal Action

A. Site Description

1. Removal Site Evaluation

The following sections provide background information on the site and nearby PRP properties that are contaminated with chlorinated solvents. EPA identified three contaminated PRP properties that were potentially contributing contamination to the

Residential Area; these included Allison Transmission, Genuine Parts (also known as the Former Allison Transmission Plant 10), and Michigan Plaza (AR Update #1, No. 6). Although each of these PRP properties had releases of various hazardous substances, pollutants, and contaminants, these sections focus primarily on chlorinated solvents, in particular vinyl chloride. Figure 1 is a Site Location Map and Figure 2 shows the site areas.

EPA reviewed information provided by Marion County Public Health Department (MCPHD), the Indiana Department of Environmental Management (IDEM), EPA's Resource Conservation and Recovery Act (RCRA) Corrective Action Program, along with data provided by the PRPs and their consultants.

a. PRP Facilities

i. Allison Transmission

Allison Transmission includes six plants, all located north to northwest of the West Vermont Site. Allison Transmission, formerly Genuine Motors (GM) Allison Transmission, historically conducted aircraft engine testing, machining, parts cleaning, and storage (AR Update #2, No. 2). Currently, Allison Transmission produces automobile transmissions at this facility. GM is conducting environmental investigations and remediation at this facility under a RCRA corrective action agreement with EPA.

GM released many contaminants to the environment, including polychlorinated biphenyls (PCB); transmission fluid; and volatile organic compounds (VOC), including tetrachloroethene (PCE) and its degradation daughter products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride. During a 2009 investigation of the Areas of Interest (AOI), GM discovered that chlorinated solvents impacted groundwater at multiple AOIs. Environmental investigations have documented that chlorinated solvent contamination from AOI-51, a former degreaser area, has migrated south to southeast toward the West Vermont Site.

GM installed groundwater monitoring wells and collected soil and groundwater samples along West Michigan Street north of the Residential Area. Results from these samples indicated that contamination from AOI-51 and Allison Transmission had not migrated as far south as West Michigan Street and the Residential Area (AR Update #2, No. 14). However, EPA identified that there were horizontal and vertical gaps in the data. For example, monitoring well MW-1103-S3/S4 is located on West Michigan Street north to northwest of the Residential Area. This well is screened just above bedrock (85 to 95 feet below ground surface [bgs]). MW-1101-S4, also installed along West Michigan Street, is screened between 92 and 97 feet bgs. Both monitoring wells are screened in zones deeper than AOI-51 contamination and deeper than the residential wells. Therefore, these two wells were not effective for monitoring contaminant migration from AOI-51 and represented a data gap that EPA sought to fill during a 2011 analytical and hydrogeological evaluation.

ii. Genuine Parts

Genuine Parts is located at 700 North Olin Avenue, northeast of the West Vermont Site. The property was operated as a carburetor remanufacturing and brake overhaul facility by BHT Corporation (BHT) and as a warehouse by GM (AR Update #2, #7). Currently, the Genuine Parts Company is conducting environmental remediation at this facility through IDEM's Voluntary Remediation Program (VRP).

In May 2000, buried drums and other waste were discovered on the western portion of Genuine Parts during installation of remediation system piping (AR Update #2, No. 7). Soil and groundwater at Genuine Parts were contaminated with chlorinated VOCs including TCE and its associated breakdown products, such as cis-1,2- DCE, trans-1,2-DCE, and vinyl chloride; polynuclear aromatic hydrocarbons (PAH); and metals such as cadmium, chromium, and lead. Vinyl chloride concentrations have been documented as high as 1,500 µg/L in groundwater monitoring well MW-165D in January 2002 (AR Update #2, No. 16).

Contamination from Genuine migrated to the south, flowed beneath Little Eagle Creek, and impacted the Michigan Meadows Apartments. Figure 3 shows groundwater results from January 2002 which indicate that a vinyl chloride plume extended south to monitoring well MW-170D, which is located about 200 feet northeast of the Residential Area. Vinyl chloride concentrations in January 2002 ranged from 1,500 ug/L near Genuine Parts to 80 ug/L in monitoring well MW-170D. Between 2002 and 2007, no groundwater data were collected south-southwest of the Michigan Meadows Apartments, near the Residential Area.

iii. Michigan Plaza

Michigan Plaza is a strip mall located at 3801-3823 West Michigan Street, northeast of the West Vermont Site. One of the former tenants, Accent Cleaners, operated a dry cleaning business at the property from which there were releases of chlorinated solvents including PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride (AR Update #2, No. 10). Currently Aimco and/or its affiliate, Aimco Michigan Meadows Holding (AMMH), LLC, are conducting work under IDEM's VRP at Michigan Plaza.

Michigan Plaza, via its tenant Accent Cleaners, released chlorinated solvents into the sanitary sewer line. Contamination flowed along this preferential pathway to the north and impacted the Michigan Meadows Apartments complex and flowed following normal groundwater flow (AR Update #2, No. 9).

Remediation at Michigan Plaza consisted of the injection of 47,000 pounds of a product called CAP18 in August 2007 and 16,500 pounds of CAP18 ME in February 2009 and unspecified volumes of water to reduce PCE concentrations (AR Update #2, Nos. 10 and 11). CAP18 is a vegetable oil product that can enhance the dechlorination process by anaerobically stimulating biological processes to transform contaminants such as PCE to

ethane or ethene. However, when the reductive dechlorination process is incomplete, concentrations of DCE or vinyl chloride can increase in groundwater. "DCE/VC Stall" is typically caused by insufficient electron donors to achieve strongly reducing conditions (AR Update #2, No. 22). Biological activity can be hindered by lack of sufficient electron donor or affected by pH, the presence of biotoxins, micronutrient limitations, and other factors. According to an EPA fact sheet on vinyl chloride, existing data indicate that vinyl chloride is resistant to biodegradation in aerobic systems and therefore, it may not be subject to biodegradation in aerobic soils and natural waters (AR Update #2, No. 3).

Post-injection groundwater results show that vinyl chloride increased significantly from the original concentrations. According to IDEM, "the aggressive bioremediation effort has increased [vinyl chloride] concentrations over 1000 times in some locations and has changed the equilibrium of the aquifer" (AR Update #2, No.12). For example, in groundwater monitoring well MMW-P-06, vinyl chloride increased from non-detect (ND) (less than 2 ug/L) in February 2007 to 15,600 µg/L in July 2011 (AR Update #2, No. 17). It appears that DCE/VC stall may have occurred and CAP18 injections increased vinyl chloride concentrations in groundwater.

Figure 4 shows data from the first quarter of 2007 prior to the CAP18 injections indicating that there was a low-concentration vinyl chloride plume at Michigan Plaza. Figure 5 shows post-injection data from December 2011 indicating that the vinyl chloride plume increased in size and concentration. In December 2011, vinyl chloride concentrations at Michigan Plaza were as high as 10,500 ug/L (AR Update #2, No. 23). Vinyl chloride concentrations in MW-170D increased from 105 ug/L in February 2007 to 230 ug/L in June 2008, following the first CAP18 injection. Vinyl chloride concentrations in MW-170D increased to 233 ug/L in July 2010 following the second CAP18 injection in 2009.

b. MCPHD

In 2009, MCPHD identified approximately 25 homes in the West Vermont-Cossell Road neighborhood that utilized private drinking water wells and were not connected to a municipal water supply. MCPHD sampled the wells and detected vinyl chloride at three residences along West Vermont Street and Cossell Road at concentrations as high as 62.7 µg/L in groundwater used as a drinking water source (AR Update #2, No. 1). There is a lack of historical data from the residential wells prior to 2009, so it is not known when the residential wells were contaminated.

c. EPA

In November 2009 and February 2010, EPA installed temporary treatment systems in the three residences to mitigate vinyl chloride in the drinking water.

In March 2011, EPA's Superfund Techncial Assessment and Response Team (START) contractor prepared a Technical Memorandum to evaluate and summarize information about contamination at the West Vermont Site (AR Update #1, No. 6). START identified

three potential sources of contamination for the Residential Area - Allison Transmission Plant, Genuine Auto Parts, and Michigan Plaza Sites. It was noted that releases from Michigan Plaza into the sanitary sewer resulted in comingling with the groundwater plume from the Genuine Parts property. The 2011 Technical Memorandum identified several data gaps that made it difficult to attribute contamination in the Residential Areas to the PRP sites. These data gaps included a lack of monitoring wells between the Residential Area and Allison Transmission that were appropriately screened to monitor contaminant migration from Allison Transmission; an insufficient understanding of preferential pathway flow through sewer lines in the vicinity of Michigan Plaza; and a lack of monitoring wells west of Genuine Auto Parts, the Michigan Meadows Apartments, and Michigan Plaza properties, as well as within the Residential Area.

In November and December 2011, EPA conducted time-critical removal activities to determine the source of contamination in residential wells. EPA activities included: reviewing historical reports of environmental investigations from the three PRP properties; drilling and collecting samples at five vertical aquifer sample (VAS) locations; installing thirteen groundwater monitoring wells; gauging 151 groundwater monitoring wells; and sampling 68 groundwater monitoring wells, 4 private drinking water wells, and 5 soil borings. EPA installed 13 nested monitoring wells to fill the data gaps identified above, including drilling monitoring wells west or southwest of Genuine Parts and Michigan Plaza along Holt Road; south of the Residential Area on West Vermont Street; and south of Allison Transmission along West Michigan Street. Time-critical removal activities are detailed in the *Technical Memorandum, Hydrogeological and Analytical Evaluation, West Vermont Site* (AR Update #2, No. 23).

The bullets below summarize the findings from EPA's 2011 investigation and subsequent review of information.

- Groundwater flow near the Residential Area is to the south-southwest and may be influenced by numerous factors including, but not limited to, pumping of 25 residential wells.
- Chlorinated solvents were detected at Allison Transmission. However, remedial activities have reduced chlorinated solvent concentrations and restricted groundwater plumes to the Allison Transmission property. Contamination was not detected in monitoring wells between Allison Transmission and the Residential Area.
- TCE, DCE, and vinyl chloride were detected in several monitoring wells associated with Genuine Parts. Historically, a contamination plume migrated south from Genuine Parts toward the Residenital Area. However, contamination was not detected in monitoring wells or VAS borings between Genuine Parts and the Residential Area during the 2011 investigation.
- Vinyl chloride concentrations have increased several orders of magnitude following aggressive bioremediation, i.e. CAP18 injections, at Michigan Plaza. A large chlorinated solvent plume is present beneath Michigan Plaza; this plume extends off the Michigan Plaza property in all directions. During EPA's investigation, vinyl chloride was detected at a maximum concentration of 10,500

ug/L in monitoring well MMW-P-06 at the Michigan Plaza site. DCE and vinyl chloride were detected in monitoring wells and VAS borings between the Michigan Plaza property and the Residential Area during the 2011 investigation.

- There is clear evidence that contamination from Genuine Parts migrated south and comingled with a plume from Michigan Plaza that migrated north through the sanitary sewer onto the Michigan Meadow Apartment property. As such, it would be impossible to distinguish between contamination to attribute it to Genuine Parts or Michigan Plaza.
- Vinyl chloride was detected in two groundwater samples collected from drinking water wells in the Residential Area in December 2011, at concentrations ranging from 4.8 to 26.1 µg/L.

Following review of the available information and analytical data, EPA concluded the following:

- There was no evidence that contamination from Allison Transmission impacted the Residential Area.
- Genuine Parts is a contributor to the Residential Area contamination because there is a comingled plume from Genuine Parts and Michigan Plaza that has affected the Residential Area. Michigan Plaza is a contributor to the Residential Area contamination because CAP18 injections from the Michigan Plaza property have significantly increased vinyl chloride concentrations in groundwater. Following CAP18 injections, vinyl chloride concentrations increased at Michigan Plaza from 21 µg/L in November 2005 to 15,600 µg/L in July 2011 in monitoring well MMW-P-06. to the south-southwest to the Residential Area.

EPA determined that Genuine Parts and Michigan Plaza properties are contributors to drinking water contamination at the West Vermont Site. EPA also determined that Allison Transmission is not currently a source of contamination at the West Vermont Site.

2. Physical Location

The site is a Residential Area bounded by West Vermont Street on the south, Holt Road on the east, West Michigan Street on the north, and North Rybolt Avenue on the west in Speedway, Marion County, Indiana (Figure 1).

EPA conducted an Environmental Justice (EJ) analysis for the site. Screening of the surrounding area used Region 5's EJ Screen Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT). Region 5 reviewed environmental and demographic data for the area surrounding the West Vermont site, and determined there is high potential for EJ concerns at this location.

3. Site Characteristics

The site is a residential neighborhood, where 25 homes rely upon private drinking water wells as their only sources of water. Vinyl chloride has been detected in drinking water wells at three properties.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

A release of hazardous substances, pollutants, or contaminants has been documented in drinking water at three residences. The threat to drinking water has been temporarily mitigated by emergency actions conducted by EPA in November of 2009 and February of 2010, including the installation of water treatment systems. However, additional residences could potentially be exposed by migration of the groundwater plume. Vinyl chloride has been detected in drinking water at a number of these other residences at concentrations below the RML.

Hazardous substances are present in groundwater used as a drinking water source. Possible exposure routes include ingestion of contaminated drinking water; dermal contact with contaminated drinking water through cooking, washing, or bathing; and inhalation of volatilized chemicals during showering or bathing. Potential human receptors include residents in the Residential Area.

5. NPL status

The site is not currently on the NPL. It is not known if it will be referred by IDEM to the NPL site assessment program. EPA has notified the IDEM Site Investigation Section of conditions at the site and will communicate results of EPA actions.

6. Maps, pictures and other graphic representations

Maps and pictures include:

Figure 1 - Site Location Map
Figure 2 - Site Area Map
Figure 3 - Vinyl Chloride Isoconcentration Contours in Deep Monitoring Wells, East of Holt Road – 3rd Quarter 2002
Figure 4 - Vinyl Chloride Isoconcentration Contours in Deep Monitoring Wells, East of Holt Road – 1st Quarter 2007
Figure 5 - Vinyl Chloride Isoconcentration Contours for Deep Monitoring Wells, Eastern Portion of the Study Area – 4th Quarter 2011

B. Other Actions to Date

1. Previous actions

In November 2009 and February 2010, EPA conducted an emergency action to install temporary water treatment systems in the three most seriously affected residences because of vinyl chloride concentrations in the drinking water above the 1997 Removal Action Level (RAL). These actions were documented in a previous Action Memorandum (AR Original, No. 5).

In 2010, EPA conducted groundwater gauging, sampling, and file review to identify the source of the release. A Hydrogeological Assessment prepared by EPA's START contractor concluded that each of the three PRP sites discussed above could have potentially contaminated these residential drinking water wells (AR Update #1, No. 6).

2. Current actions

MCPHD is sampling drinking water in the Residential Area on a regular basis. Consultants for Genuine Parts and Michigan Plaza are continuing groundwater monitoring and remediation at their respective sites through IDEM's VRP.

C. State and Local Authorities' Roles

On October 8, 2009, Ken McDaniel of IDEM's State Cleanup program formally requested assistance from EPA (AR Original, No. 2). In addition, MCPHD verbally requested assistance from EPA.

IDEM's VRP currently regulates both the Michigan Plaza and Genuine Parts sites. These two sites will remain in the VRP or another IDEM program for investigation and remediation activities. IDEM requested that Michigan Plaza suspend additional CAP18 injections until IDEM can approve a Remediation Work Plan (AR Update #2, No. 21).

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at the West Vermont Drinking Water Contamination Site present a threat to the public health or welfare, and the environment, and meet the criteria for a time-critical removal action as provided for in the NCP, 40 CFR 300.415(b)(2). These criteria include, but are not limited to, the following:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

Vinyl chloride is present in three residential wells. Vinyl chloride concentrations in these drinking water wells range from below 2 to 62 µg/L. The RML is 1.5 µg/L.

Possible exposure routes include ingestion of contaminated drinking water; dermal contact with contaminated drinking water through cooking, washing, or bathing; and inhalation of volatilized chemicals during showering or bathing. Potential human receptors include residents in the Residential Area.

Vinyl chloride is a hazardous substance, as defined by section 101(14) of CERCLA. The Agency for Toxic Substances and Disease Registry (ATSDR) has studied toxicological effects of vinyl chloride. According to ATSDR, the effects of drinking high levels of vinyl chloride are unknown. However, the U.S. Department of Health and Human Services has determined that vinyl chloride is a known carcinogen. In addition to ingestion, there is a potential exposure to inhalation of vinyl chloride vapors via use of water for cooking, showering, and bathing. Breathing vinyl chloride for long periods of time can result in permanent liver damage, immune system reactions, nerve damage, and liver cancer (AR Update #1, No. 2).

The mobility of organic contaminants is based on a combination of solubility (s) and a soil adsorption coefficient (K_{oc}). Vinyl chloride has a solubility of 2.7 grams per liter (g/L) or 2700 milligrams per liter (mg/L), and a K_{oc} of 56. EPA has determined that based on these characteristics, vinyl chloride is highly mobile (AR Update #2, No. 3). As such, vinyl chloride may travel far from its source area, exposing nearby human populations.

Actual or potential contamination of drinking water supplies or sensitive ecosystems;

As documented above, drinking water supplies have been contaminated and potential exists for the groundwater plume to migrate and contaminate up to 25 residential drinking water wells. There is a large co-mingled plume from Genuine Parts and Michigan Plaza with vinyl chloride concentrations historically as high as 15,600 ug/L.

The availability of other appropriate federal or state response mechanisms to respond to the release;

Both IDEM and MCPHD have asked EPA to mitigate the threat of exposure to vinyl chloride in drinking water. On October 8, 2009, Ken McDaniel of IDEM's State Cleanup Program sent a letter EPA formally requesting assistance (AR Original, No. 2).

IV. ENDANGERMENT DETERMINATION

Given the site conditions, the nature of the known and suspected hazardous substances on site, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions selected in this Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS

A. Proposed Actions

1. Proposed action description

The response actions described in this memorandum directly address actual or potential releases of hazardous substances on site, which may pose an imminent and substantial endangerment to public health, or welfare, or the environment. Removal activities will include:

1. Connecting 25 residential properties within the site boundary to a municipal drinking water supply;

2. Abandoning residential drinking wells in accordance with state regulations;

3. If hazardous substances are encountered while excavating water lines, transport and dispose off-site any hazardous substances, pollutants and contaminants at a CERCLA-approved disposal facility in accordance with U.S. EPA's Off-Site Rule (40 CFR § 300.440).

4. Take any other response actions to address any release or threatened release of a hazardous substance, pollutant or contaminant that the EPA On-Scene Coordinator (OSC) determines may pose an imminent and substantial endangerment to the public health or the environment.

The removal actions will be conducted in a manner not inconsistent with the NCP. The PRPs will initiate planning for provision of post-removal site control consistent with the provisions of NCP § 300.415(l).

The threats posed by uncontrolled substances considered hazardous meet the criteria listed in NCP § 300.415(b)(2), and the response actions proposed herein are consistent with any long-term remedial actions which may be required. Elimination of hazardous substances, and pollutants and contaminants that pose a substantial threat of release is expected to minimize substantial requirements for post-removal site controls. The project will require approximately 90 working days to complete

Off-Site Rule

All hazardous substances, pollutants, or contaminants removed off-site pursuant to this removal action for treatment, storage, and disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 C.F.R. § 300.440.

2. Contribution to remedial performance

The proposed action will not impede future actions based on available information. Although the site is not on the NPL, the OSC will coordinate with IDEM to address long-term groundwater contamination.

3. Engineering Evaluation/Cost Analysis (EE/CA)

Not Applicable

4. Applicable or relevant and appropriate requirements (ARAR)

On February 10, 2012, the OSC sent a letter requesting ARARs to IDEM (AR Update #2, No. 18). IDEM identified that permanent abandonment of wells must follow appropriate methods and procedures outlined in 312 Indiana Administrative Code (IAC) 13-10-2 (AR Update #2, No. 19). The PRPs will comply with ARARs.

All hazardous substances, pollutants or contaminants removed off-site pursuant to this removal action for treatment, storage and disposal shall be treated, stored, or disposed at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 CFR § 300.440.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the site conditions, the nature of the hazardous substances and pollutants or contaminants documented on site, and the potential exposure pathways to nearby populations described in Section II, III, IV, and V above, actual or threatened releases of hazardous substances and pollutants or contaminants from this site, if not addressed by implementing or delaying the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment, increasing the potential that hazardous substances will be released, thereby threatening the adjacent population and the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy is contained in the Enforcement Confidential Addendum.

U.S. EPA expects that the PRPs can and will perform the selected response actions properly and promptly. U.S. EPA expects to issue a UAO in the summer of 2013.

IX. RECOMMENDATION

This decision document represents the selected removal action for the West Vermont Drinking Water Contamination Site located in Speedway, Marion County, Indiana, developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the site (Attachment I).

Conditions at the site meet the NCP § 300.415(b)(2) criteria for a time-critical removal action. Region 5 expects that the PRPs will perform all removal actions under the oversight of the OSC. I recommend your approval of the proposed removal action. You may indicate your decision by signing below.

APPROVE _____ DATE: 8-5-13
Director, Superfund Division

DISAPPROVE _____ DATE: _____
Director, Superfund Division

Enforcement Addendum

Figures:

1 Site Location Map
2 Site Area Map
3 Vinyl Chloride Isoconcentration Contours in Deep Monitoring Wells, East of Holt Road – 3rd Quarter 2002
4 Vinyl Chloride Isoconcentration Contours in Deep Monitoring Wells, East of Holt Road – 1st Quarter 2007
5 Vinyl Chloride Isoconcentration Contours for Deep Monitoring Wells, Eastern Portion of the Study Area – 4th Quarter 2011

Attachments:

I. Administrative Record Index

cc: Sherry Fielding, U.S. EPA, 5104-A
Valencia Darby, U.S. DOI, **w/o Enf. Addendum**
Rex Osborn, IDEM **w/o Enf. Addendum**
Corey Webb, IDEM **w/o Enf. Addendum**

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NOT RELEVANT TO SELECTION OF

REMOVAL ACTION

ENFORCEMENT ADDENDUM

ENFORCEMENT SENSITIVE – DO NOT RELEASE – NOT SUBJECT TO DISCOVERY – FOIA EXEMPT

WEST VERMONT DRINKING WATER CONTAMINATION SITE

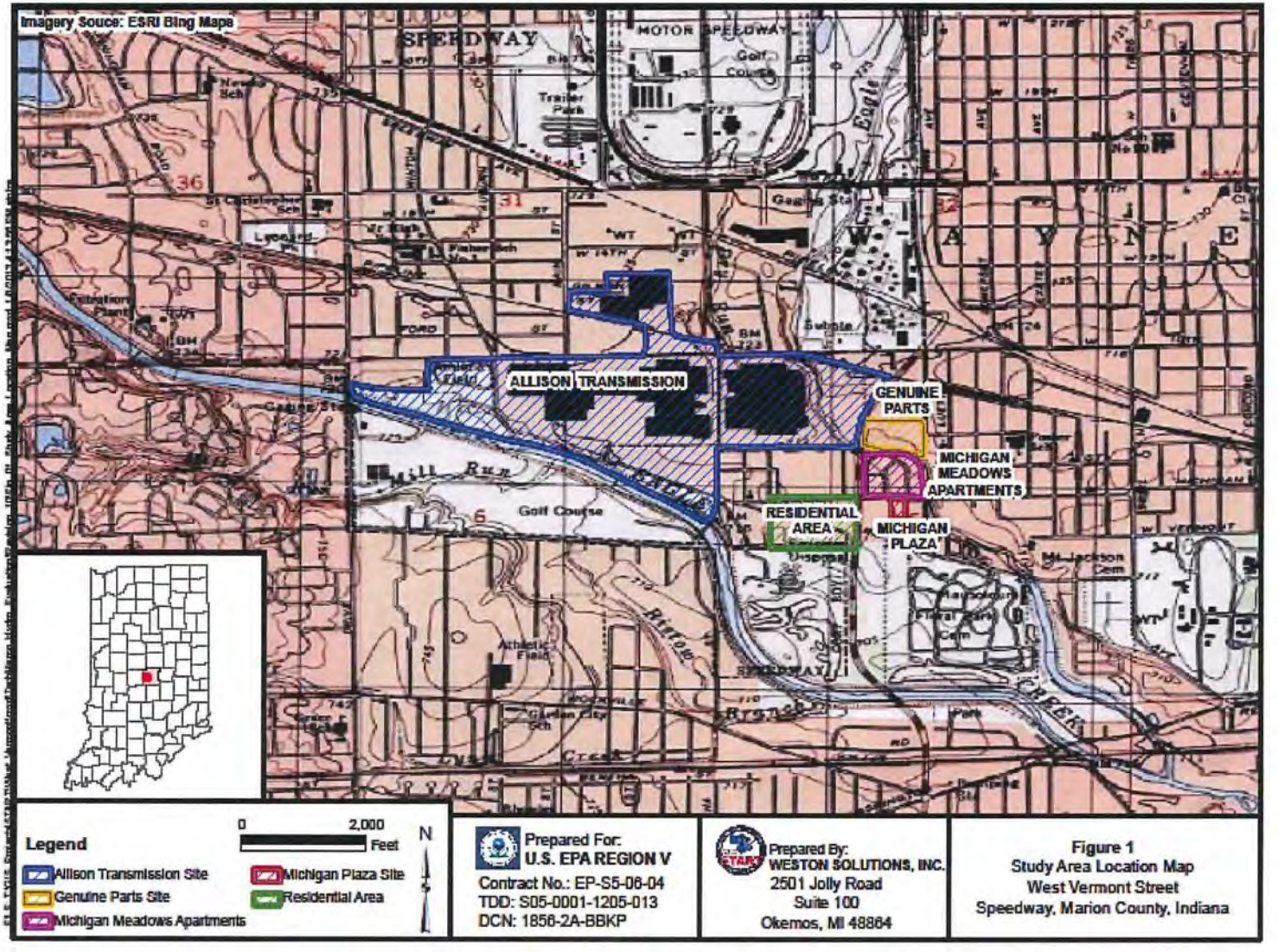
HAS BEEN REDACTED

ELEVEN PAGES

ENFORCEMENT SENSITIVE

NOT APPLICABLE TO DISCOVERY

NOT RELEVANT TO SELECTION OF REMOVAL ACTION


Imagery Souce: ESRI Bing Maps
SPEEDWAY
MOTOR SPEEDWAY
ALLISON TRANSMISSION
GENUINE PARTS
MICHIGAN MEADOWS APARTMENTS
RESIDENTIAL AREA
MICHIGAN PLAZA
Mill Run
Golf Course
Legend
Allison Transmission Site
Genuine Parts Site
Michigan Meadows Apartments
Michigan Plaza Site
Residential Area
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Prepared For:
U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDD: S05-0001-1205-013
DCN: 1856-2A-BBKP
Prepared By:
WESTON SOLUTIONS, INC.
2501 Jolly Road
Suite 100
Okemos, MI 48864
Figure 1
Study Area Location Map
West Vermont Street
Speedway, Marion County, Indiana


Imagery Source: ESRI Bing Maps
OLD SPEEDWAY CITY
W 14th St
W 13th St
W 12th St
W 11th St
W 10th St
Main St
Polco St
Gilman St
Ford St
Greenlawn St
N Auburn St
Cosselli Rd
Grange Ave
Kilfoil Rd
LITTLE EAGLE CREEK
WESTSIDE
Allison T
ALLISON TRANSMISSION
Olin Park
GENUINE PARTS
MICHIGAN MEADOWS APARTMENTS
BIG EAGLE CREEK
AJ Thatcher Golf Course
Big Eagle Creek
RESIDENTIAL AREA
MICHIGAN PLAZA
W Vermont St
N Fuller Dr
N Cole St
N Holt Rd
Legend
Allison Transmission Site
Genuine Parts Site
Michigan Meadows Apartments
Michigan Plaza Site
Residential Area
N
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Prepared For:
U.S. EPA REGION V
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DCN: 1856-2A-BBKP
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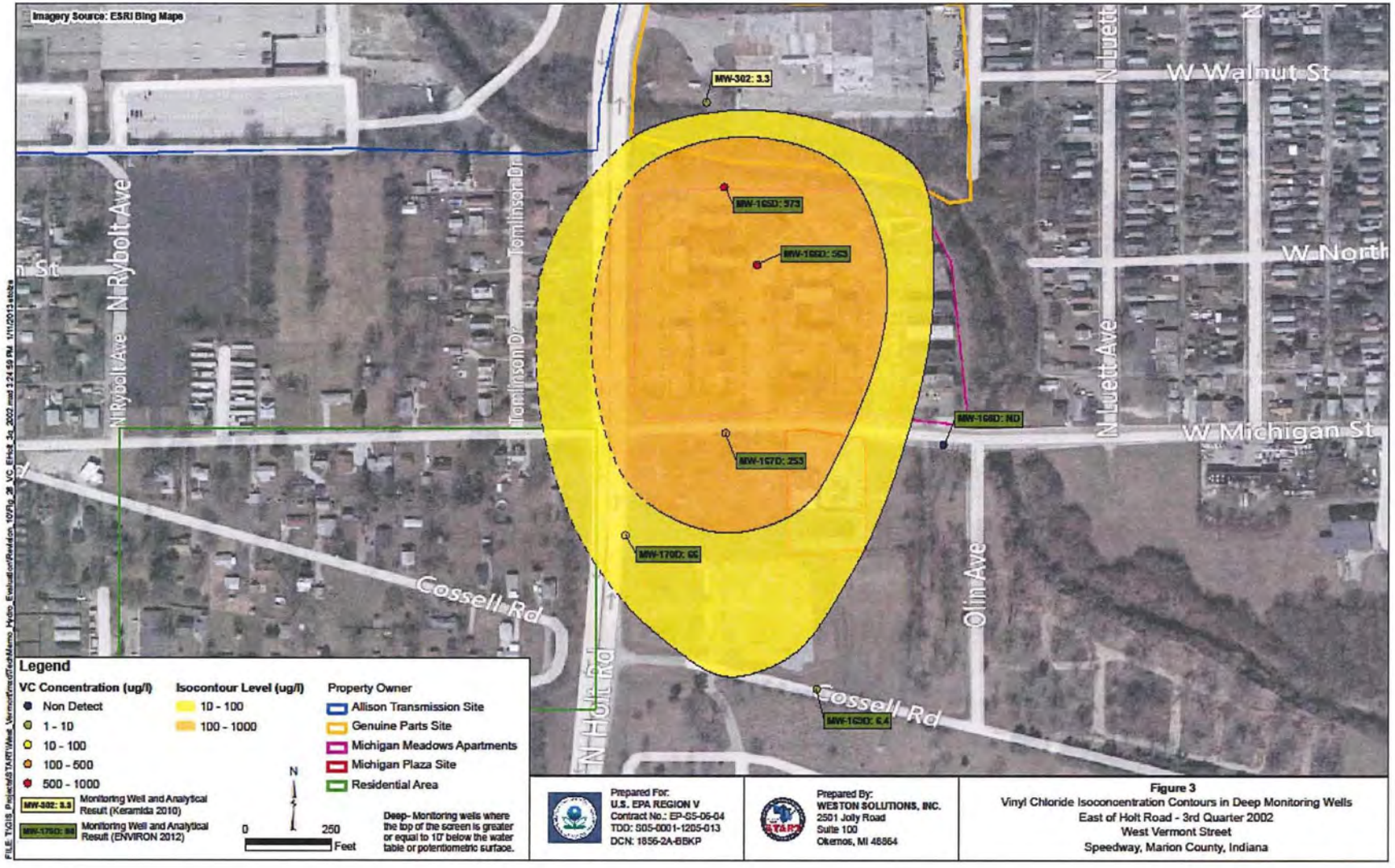
Figure 2
Study Area Map
West Vermont Street
Speedway, Marion County, Indiana



Prepared For:
U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDO: S05-0001-1205-013
DCN: 1856-2A-BBKP

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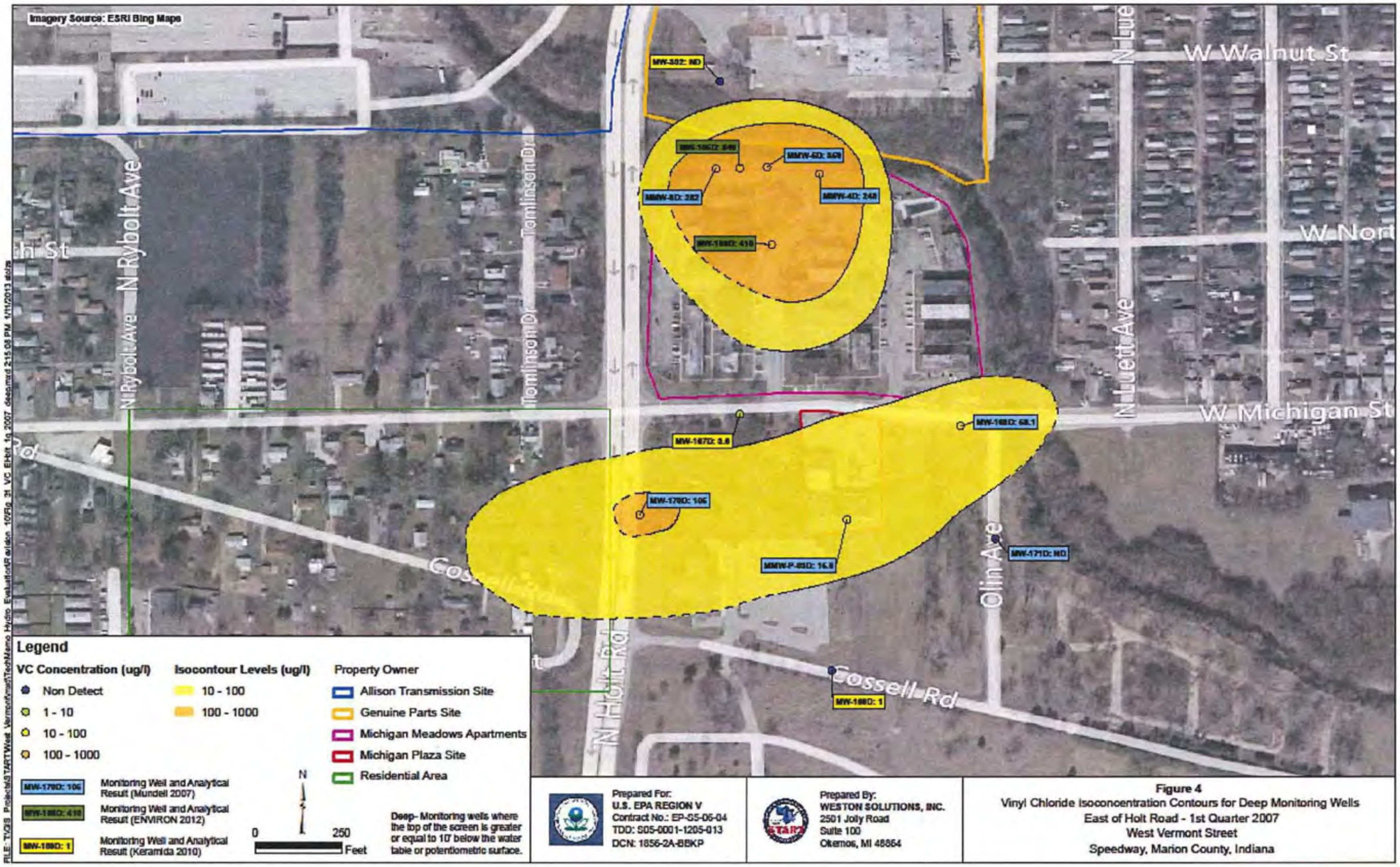
Figure 3
Vinyl Chloride Isoconcentration Contours in Deep Monitoring Wells
East of Holt Road - 3rd Quarter 2002
West Vermont Street
Speedway, Marion County, Indiana

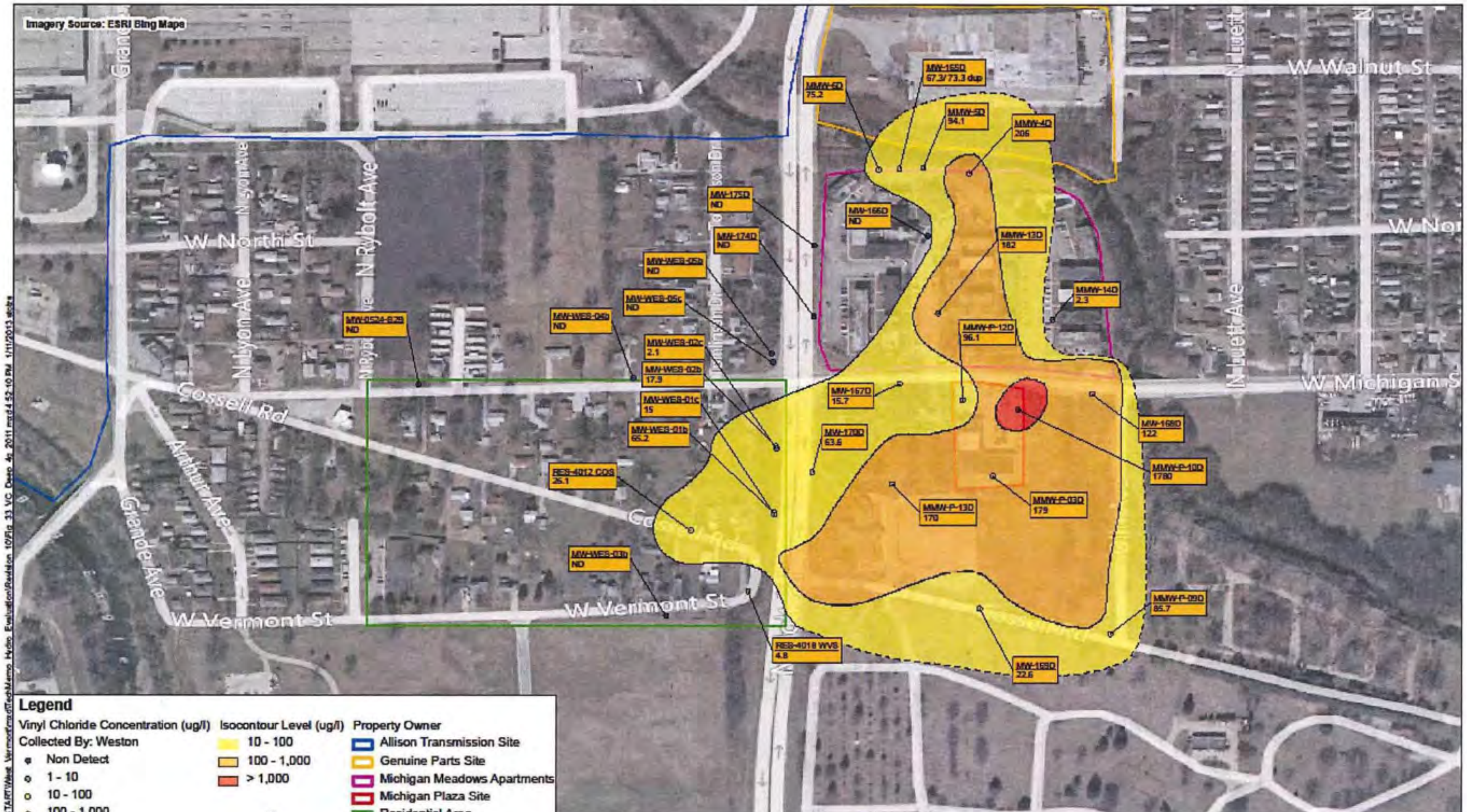


Imagery Source: ESRI Bing Maps
W Walnut St
W Nort
h St
N Rybolt Ave
Tomlinson Dr
N Luett Ave
N Lue
W Michigan St
Olin Ave
Cossell Rd
N Holt Rd
MMW-8D: 282
MMW-4D: 248
MW-170D: 106
MW-171D: ND
Legend
VC Concentration (ug/l)
Non Detect
1 - 10
10 - 100
100 - 1000
Isocontour Levels (ug/l)
10 - 100
100 - 1000
Property Owner
Allison Transmission Site
Genuine Parts Site
Michigan Meadows Apartments
Michigan Plaza Site
Residential Area
MW-170D: 106
Monitoring Well and Analytical Result (Mundell 2007)
Monitoring Well and Analytical Result (ENVIRON 2012)
Monitoring Well and Analytical Result (Keramida 2010)
N
0
250
Feet
Deep- Monitoring wells where the top of the screen is greater or equal to 10' below the water table or potentiometric surface.

Prepared For:
U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDD: S05-0001-1205-013
DCN: 1856-2A-BBKP

Prepared By:
WESTON SOLUTIONS, INC.
2501 Jolly Road
Suite 100
Okemos, MI 48864

Figure 4
Vinyl Chloride Isoconcentration Contours for Deep Monitoring Wells
East of Holt Road - 1st Quarter 2007
West Vermont Street
Speedway, Marion County, Indiana


Imagery Source: ESRI Bing Maps
W Walnut St
W North St
W Michigan St
Gossett Rd
W Vermont St
N Nyon Ave
N Rybolt Ave
N Luett Ave
Grande Ave
Arthur Ave
MW-165D
67.3/73.3 dup
MMW-6D
75.2
MMW-5D
94.1
MMW-4D
206
MW-175D
ND
MW-166D
ND
MW-174D
ND
MMW-13D
182
MW-WES-05b
ND
MW-WES-05c
ND
MMW-14D
2.3
MW-WES-04b
ND
MMW-P-12D
96.1
MW-WES-02c
2.1
MW-WES-02b
17.9
MW-167D
15.7
MW-WES-01c
15
MW-168D
122
MW-WES-01b
65.2
MW-170D
63.6
MMW-P-10D
1780
RES-4012 COS
26.1
MMW-P-13D
170
MMW-P-03D
179
MW-WES-03b
ND
MMW-P-09D
85.7
RES-4018 WVS
4.8
MW-169D
22.6
Legend
Vinyl Chloride Concentration (ug/l)
Collected By: Weston
Non Detect
1 - 10
10 - 100
100 - 1,000
> 1,000
Isocontour Level (ug/l)
10 - 100
100 - 1,000
> 1,000
Property Owner
Allison Transmission Site
Genuine Parts Site
Michigan Meadows Apartments
Michigan Plaza Site
Residential Area
MW-WES-03b
ND
Monitoring Well and Analytical Result (Weston collected data)
N
0
300
Feet
Deep- Monitoring wells where the top of the screen is greater or equal to 10' below the water table or potentiometric surface.

Prepared For:
U.S. EPA REGION V
Contract No.: EP-S5-06-04
TDD: S05-0001-1205-013
DCN: 1856-2A-BBKP

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2501 Jolly Road
Suite 100
Okemos, MI 48864

Figure 5
Vinyl Chloride Isoconcentration Contours for Deep Monitoring Wells
Eastern Portion of the Study Area - 4th Quarter 2011
West Vermont Street
Speedway, Marion County, Indiana

ATTACHMENT I

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
WEST VERMONT DRINKING WATER CONTAMINATION SITE
INDIANAPOLIS, MARION COUNTY, INDIANA

ORIGINAL
(SDMS ID: 363305)
MAY 13, 2010

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	07/00/06	ATSDR	File	ToxFAQs for Vinyl Chloride (**SDMS ID: 363300**)	2
2	10/08/09	McDaniel, K., IDEM	Gebien, C., U.S. EPA	E-mail Message re: IDEM's Request for U.S. EPA assistance at the West Vermont Drinking Water Contamination Site (**SDMS ID: 363301**)	5
3	12/00/09	Marion County Health Dept.	U.S. EPA	Analytical Results for Residential Drinking Water in Speedway, Indiana (6/09-12/09) (**SDMS ID: 363302**)	55
4	02/22/10	Schlieger, B., U.S. EPA	Atkinson, H., IDEM	Letter re: U.S. EPA's Request for IDEM to Identify any/all ARARs for the West Vermont Drinking Water Contamination Site (**SDMS ID: 363303**)	1
5	05/13/10	Schlieger, B., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Documentation and Justification of a Time-Critical Removal Action at the West Vermont Drinking Water Contamination Site (**PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED/SDMS ID: 363304**)	**14**

UPDATE #1
SEPTEMBER 26, 2011

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	00/00/00	ARCADIS	File	RCRA Facility Investigation Report for Allison Transmission, Inc. (**SDMS ID: 409780**)	34
2	07/00/06	ATSDR	File	ToxFAQs Sheet for Vinyl Chloride CAS #75-01-4 (**SDMS ID: 409781**)	2
3	04/01/07	Mundell, J., Mundell & Associates, Inc.	Brittain, E., IDEM	Further Site Investigation Addendum I, Michigan Plaza(**SDMS ID: 409782**)	236
4	04/30/10	Mundell, J. & S. Webb, Mundell & Associates, Inc.	Brittain, E., IDEM	Quarterly Monitoring Progress Report – 1st Quarter 2010 Michigan Plaza w/Cover Letter (**SDMS ID: 409783**)	137
5	08/12/10	KERAMIDA, Inc.	IDEM	Remediation System Evaluation Report April Through June 2010 for the Former General Motors Corporation, Allison Gas Turbine Division, Plant 10 (**SDMS ID: 409784**)	661
6	03/27/11	Weston Solutions, Inc.	Lam, S., U.S. EPA	Technical Memorandum, Analytical and Hydrogeological Evaluation, West Vermont Street Contamination Site (**SDMS ID: 409785**)	148
7	09/26/11	Atkociunas, P., U.S. EPA	Karl, R., U.S. EPA	Action Memorandum: Request for Approval and Funding for a Time-Critical Removal Action at the West Vermont Drinking Water Contamination Site, Speedway, Marion County, Indiana (**PORTIONS OF THIS DOCUMENT HAVE BEEN REDACTED/ SDMS ID: 409779**)	28

UPDATE #2
FEBRUARY 27, 2013

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
1	00/00/00	MCHD	File	Spreadsheet: Residential Well Results (MS Excel File) **(SDMS ID: 437067)**	1
2	00/00/00	Arcadis	File	RCRS Facility Investigation Report for Allison Transmission, Inc. **(SDMS ID: 409780)**	34
3	00/00/00	U.S. EPA	File	Technical Fact Sheet re: Vinyl Chloride **(SDMS ID: 437069)**	3
4	06/00/97	U.S. EPA	File	Excerpt from Remedial Investigation Report for the North Belmont PCE Site, NC: Section 5 Containment Fate and Transport **(SDMS ID: 437070)**	15
5	06/03/97	Fluor Daniel General GTI	Motors Corporation	Feasibility Study Report for the General Motors-Allison Gas Turbine Plant 10 **(SDMS ID: 437071)**	49
6	09/00/97	ATSDR	File	ToxFAQs Sheet for Tetra-chloroethylene CAS #127-18-4 **(SDMS ID: 902228)**	2
7	10/30/02	Kermida Environmental, Inc.	IDEM	Remediation Work Plan for Former General Motors Corporation Allison Gas Turbine Division Plant 10: Volume 1 **(SDMS ID: 437072)**	434

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
8	12/01/06	Lothe, L., & J. Mundell, Mundell & Associates Inc.	O'Callaghan, J., IDEM	Letter re: Further Site Investigation at Michigan Plaza **(SDMS ID: 437073)**	38
9	04/01/07	Mundell & Associates, Inc.	IDEM	Further Site Investigation - Addendum I for Michigan Plaza **(SDMS ID: 409782)**	235
10	02/22/08	Mundell & Associates, Inc.	McInerny, D., Bose, McKinney & Evans, LLP	Remediation Work Plan for Michigan Plaza **(SDMS ID: 437074)**	142
11	10/31/09	Lothe, L., & J. Mundell, Mundell & Associates Inc.	Brittain, E., IDEM	Letter re: Quarterly Monitoring Progress Report 1st Quarter 2009 for Michigan Plaza **(SDMS ID: 437075)**	599
12	01/22/10	Brittain, E., R. Harris, Genuine Parts Company	Lewis, B., J. Mundell, Mundell & Associates, Inc.	Letter re: Additional Investigation Request for Genuine Parts, Michigan Plaza and Allison Transmission Plant 12 **(SDMS ID: 437076)**	2
13	04/19/10	Weston Solutions, Inc.	File	Data Validation Report for the West Vermont Street Site **(SDMS ID: 902229)**	15
14	01/14/11	Favero, D., Favero Geosciences	Heller, D., U.S. EPA	Letter re: Fourth Quarter 2010 Progress Report for RCRA Corrective Action at Allison Transmission Speedway **(SDMS ID: 901047)**	1033
15	03/27/11	Weston Solutions, Inc.	U.S EPA	Technical Memorandum: Analytical and Hydrogeological Evaluation for the West Vermont Street Contamination Site **(SDMS ID: 409785)**	148

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
16	01/00/12	ENVIRON International Corporation	IDEM	Remedial Progress Report for Former Allison Plant 10 **(SDMS ID: 437077)**	396
17	01/31/12	Webb, S. & J. Mundell, Mundell & Associates, Inc.	Anderson, C., IDEM	Letter re: Quarterly Monitoring Progress Report, Fourth Quarter 2011 for Michigan Plaza **(SDMS ID: 437078)**	258
18	02/10/12	Lam, S., U.S. EPA	Hauer, G., IDEM	Letter re: Request for ARARs for the West Vermont Drinking Water Contimination Site **(SDMS ID: 437079)**	2
19	02/14/12	Kasarabada, P., IDEM	Lam, S., U.S. EPA	Letter re: IDEM Response to U.S. EPA Request for State ARARs for the West Vermont Street Site **(SDMS ID: 902238)**	2
20	03/16/12	Webb, S. & J. Mundell, Mundell & Associates, Inc.	Anderson, C., IDEM	Letter re: Response to IDEM's Request for Revised Remediation Work Plan approval review and technical response to general notice of potential liability review for Michigan Plaza **(SDMS ID: 437080)**	75
21	05/21/12	Webb, C., IDEM	Mundell, J., Mundell & Associates, Inc.	Email Transmission re: Revised Work Plan for the Third Round of CAP for Michigan Plaza w/ Reply History **(SDMS ID: 437081)**	2
22	07/03/12	U.S. EPA	File	In the News-Technology Innovation News Survey: U.S. EPA Contaminated Site Cleanup Information (CLU-IN) **(SDMS ID: 437082)**	1

NO.	DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
23	01/30/13	Weston Solutions, Inc.	U.S EPA	Technical Memorandum: Analytical and Hydrogeological Evaluation for the West Vermont Street Contamination Site (**SEMS ID: 409785**)	448
24	06/16/11	Weston Solutions, Inc.	U.S. EPA	Title Search Report for West Vermont Water Contamination Site, Genuine Auto Parts Property, Marion County, Indiana	11
25	06/16/11	Weston Solutions, Inc.	U.S. EPA	Title Search Report for West Vermont Water Contamination Site, Michigan Plaza Property, Marion County, Indiana	11
26	04/19/13	R.C. Minning & Associates, Inc. and Mundell & Associates, Inc.	AIMCO Michigan Meadows Holdings, LLC	Technical Response to "Technical Memorandum: Analytical and Hydrogeological Evaluation, West Vermont Street Site, Speedway, Marion County, Indiana," Prepared for USEPA by Weston Solutions, Inc. (January 30, 2013)	160
27	07/18/13	Lam, S., U.S. EPA	Billings, N., & P. Cappel, AIMCO	EPA Review of Technical Response to "Technical Memorandum: Analytical and Hydrogeological Evaluation, West Vermont Street Site, Speedway, Marion County, Indiana," Prepared for USEPA by Weston Solutions, Inc. (January 30, 2013)	16
24	00/00/00	Lam, S., U.S. EPA	Karl, R., U.S. EPA	Determination of Threat to Public Health and the Environment and Selection of Time-	

Critical Removal
Actions at the West
Vermont Drinking Water
Contamination Site,
Speedway, Marion
County, Indiana
(**PENDING**)